REMARKS

The following remarks are responsive to the Office Action of October 14, 2008, and the telephone interview conducted on December 3, 2008. At the time of the Office Action, claims 1-26 were pending.

- Claims **1–12, 15, 16, 21, 22, and 24** were rejected under 35 U.S.C. §103(a) as obvious over **Kolesnik** et al. (U.S. Patent No. 5,729,655, hereinafter Kolesnik) in view of **Carter** et al. (U.S. Patent No. 5,987,506, hereinafter Carter).
- Claims **13, 14, 23, 25, and 26** were rejected under 35 U.S.C. §103(a) as obvious over **Kolesnik** et al. in view of **Carter** et al., and further in view of **Jabri** et al. (U.S. Patent No. 6,829,579, hereinafter Jabri).
- Claims **17–20** were rejected under 35 U.S.C. §103(a) as obvious over **Kolesnik** et al. in view of **Carter** et al., in view of **Jabri** et al., and further in view of **Aguilar** et al. (U.S. Patent No. 7,272,556, hereinafter Aguilar).

Applicants thank the Examiner for the courtesy extended during the telephone interview. In accordance with the discussion with the Examiner, Applicants have amended independent claims 1, 24, and 25, and have added new claim 27 for consideration by the Examiner.

These claims have been amended to incorporate the following substantive distinctions over the cited prior art references. With the claims as amended, each of the coders comprises a different combination of functional units, although some of the functional units may comprise common functions. The common functions are then executed only one time for a given input signal.

35 U.S.C. §103(a) Obviousness of Claims 1–12, 15, 16, 21, 22, and 24 over Kolesnik in View of Carter

1. The combination of Kolesnik and Carter do not teach or suggest the elements of independent claims 1 and 24 that each coder comprises a different combination of functional

units, but that common functions between the coders are executed only one time for a given input signal.

In the Office Action, on pp. 4–6, the Examiner rejected independent claim 1 as being obvious over the combination of Kolesnik and Carter.

The Examiner stated, on p. 4:

> Kolesnik discloses… marking functions that are common from one coder to another (Kolesnik, column 13, lines 55–58, … *Generally, encoders 409 and 411 may use the same Huffman code, which differs from the code used by the encoder 1 407. The Huffman codes are precomputed using a large speech database…*, It would have been obvious to someone of ordinary skill in the art that if the same Huffman codes are used, there would be operations that are functionally equivalent between encoders 409 and 411 such that the same code could be used because it is well known in the art that codewords are output from the Huffman coding where the data would have to be similarly comprised for the same function to apply.

In the Response to Arguments section on pp. 2–3, the Examiner stated:

> Applicant argues "Kolesnik fails to teach or suggest the claimed element of marking common functions" (Remarks, Page 11, ¶ 6) The examiner respectfully disagrees. Kolesnik, column 13, lines 55–58, clearly states that the encoders may use the same Huffman code. When the execution of the Huffman code is viewed as a function, Kolesnik teaches that it may be used between two encoders.

Applicants have amended independent claim 1 to clarify that each coder comprises a different combination of functional units, and that common functions between these units are only executed one time for a given input signal.

As described previously, Kolesnik discloses an apparatus for coding speech that comprises a prefilter 200 for reducing speech noise, a short-term prediction analyzer, for extracting linear prediction coefficients (LPC), and for converting said LPC into line spectrum pairs (LSP), a variable rate LSP encoder (202) for converting said LSP into codewords of a predetermined binary code. See Kolesnik, Fig. 2a; col. 5, line 45-col. 6, line 22. The apparatus disclosed further comprises an encoder 213 for jointly coding the codewords outputted from the

variable rate LSP encoder and excitation parameters derived from the signal outputted from the prefilter. See Kolesnik, col. 9, lines 3-6.

The variable rate LSP encoder 202 is further described with reference to Fig. 4 of Kolesnik. This variable rate LSP encoder comprises three different variable rate encoders 407, 408 and 411. The LSP inputted to the variable rate LSP encoder 202 undergo three different processes 401, 404, and 406 which determine each input of said different variable rate encoders. See Kolesnik, Fig. 4. Kolesnik discloses that the variable rate encoders 409, 411 may use a same Huffman code. See Kolesnik, col. 13, lines 55-58.

However, Applicants emphasize that there is a clear difference between using a same Huffman code (which the Examiner indicates is disclosed by Kolesnik), and executing a same Huffman code one time for all of several coders (the claim language requires executing).

In general terms, a clear difference exists between the data that is used by a function, and the function itself. For a very simplistic illustration, if the Huffman code is represented by x, two completely different functions $f_1(x)$ and $f_2(x)$ could yield very different results, despite the fact that they both use the same Huffman code. This would still be true if different input signals s_1, s_2 were received, but a common Huffman code were used by two very different functions: $f_1(s_1, x)$ and $f_2(s_2, x)$. In Kolesnik, there is no suggestion, nor any indication that Kolesnik teaches that coders share the same execution of the Huffman code.

2. *The combination of Kolesnik and Carter do not teach or suggest the elements of independent claims 1 and 24 that an input signal feeds in parallel a plurality of coders.*

In the Office Action, in the Response to Arguments section on p. 2, the Examiner indicated that the claim language "an input signal feeds in parallel a plurality of coders" was not given any patentable weight because its recitation occurs in the preamble.

In response, Applicants have moved this language from the preamble into an affirmatively claimed element for independent claims 1 and 24. Thus, this language serves as a further basis for distinguishing the presently amended claims from the prior art cited against it.

Kolesnik fails to teach or suggest the claimed compression coding method in which an input signal feeds in parallel a plurality of coders. It is clear that encoder 213 and variable rate

LSP encoder 202 do not receive the same signal as an input. See Kolesnik, Fig. 2a. Also, it is clear that the different variable rate encoders 407, 409, and 411 comprised in the variable rate LSP encoder do not receive the same input signal. See Kolesnik, Fig. 4. Indeed, the LSP which are received by the variable rate LSP encoder followed three different paths. Each path outputs one of the RP, RD and RA signals. See Kolesnik, Fig. 4. These signals are then provided to the different variable rate encoders 407, 409, and 411. Thus, the analogy made between the variable rate encoders of Fig. 4 of Kolesnik and the claimed compression coders is not pertinent.

3. The combination of Kolesnik and Carter do not teach or suggest the elements of independent claims 1 and 24 that common functions are marked.

The Examiner stated, on pp. 2–3:

> Furthermore, column 14, lines 1–9, teaches that there is an indication that the predictive scheme has been used, therefore it has been marked. The argument is not persuasive.

However, based upon the claim amendments and the arguments presented above, the "predictive scheme being used" bears no correlation with the "functions that are common from one coder to another", and thus, there can be no disclosure in Kolesnik that relates to the claimed marking of common functions.

The Examiner's contentions according to which Kolesnik, by disclosing that two variable rate encoders may use a same Huffman code, would anticipate the claimed step of marking functions data common from one coder to another, is not correct. As noted above, the generation of the Huffman code is not described as a function which is carried out in the variable rate encoders. See Kolesnik, col. 13, lines 55-57. More precisely, by disclosing "the Huffman codes are pre-computed using a large speech data base," Kolesnik makes clear that the Huffman code generation is not performed by the variable rate encoders. See Kolesnik, col. 13, lines 57-58.

Hence, Kolesnik does not disclose the claimed identifying and marking steps because Kolesnik fails to disclose a coding method in which a same input signal is fed to a plurality of coders in parallel. Furthermore, Kolesnik fails to disclose a step of marking functions that are

common from one coder to another because the generation of the Huffman codes disclosed by Kolesnik is not performed by the variable rate encoders.

4. There is no motivation to resolve the deficiencies in the teaching of Kolesnik with the teaching of Carter.

As far as Carter is concerned, Applicants respectfully submit that one of ordinary skill in the art would not turn to Carter to resolve the deficiencies of the Kolesnik reference, particularly with claims as currently amended.

Carter discloses a computer system that enables to put in common persistent memory of computers so as to enable these computers to have access to a large memory space. See Carter, Abstract; col. 6, lines 3-21.

Carter discloses a method for sharing memory resources over a communication network. Carter only discloses features which deal with memory addressing, and functionalities linked to reading and writing on the shared memory space.

As currently claimed, each coder is able to implement the command function but the function is executed only one time, while Carter discloses putting in common several memory spaces in order to create a commonly shared memory space. In the present invention, the command function is not shared in the sense of Carter.

Thus, nothing in Kolesnik or Carter would lead a person with ordinary skills in the art to consider Carter's disclosure for enhancing performance in a multiple compression coding system.

In the Office Action in the Response to Arguments section, on p. 3, the Examiner disagree with this assertion, stating:

> Carter is provided in combination with Kolesnik to teach the sharing of coding information between coders. By sharing functionalities linked to the reading and writing of shared memory spaces, information derived between the coders can clearly be accessed by the multiple coders. Furthermore, the argued subject matter is not recited in the claim language as to differentiate the instant application from the combination of Kolesnik and Carter.

Applicants' amendments to the independent claims to expressly recite in the claim body differentiating claim language—and, in further support of Applicants' position, even if Carter discloses sharing of coding information between coders, this is still distinguished from the executing of a common function, particularly a common function only one time for certain functions within the compression coder.

Based on the foregoing, Applicants respectfully submit that independent claims 1, 24, and 25 are allowable, as well as dependent claims 2–12, 15, 16, 21, and 22 that depend therefrom, and request that the Examiner withdraw this 35 U.S.C. §103 rejection from the application.

35 U.S.C. §103(A) Obviousness of Claims 13, 14, 17–20, 23, 25, and 26 over Kolesnik in view of Some Combination of Carter, Jabri, and Aguilar

5. Applicant relies upon the above arguments with respect to the remaining dependent claims and independent claim 25, and asserts that none of the additional references supplants the deficiencies identified above with respect to Kolesnik.

In the Office Action, on pp. 6–26, the Examiner combined Kolesnik and Carter with the Jabri and Aguilar references in establishing an obviating combination of references for various dependent claims in the present application. Without addressing the specifics of the additional references on the merits, Applicants rely upon the above arguments and assert that the disclosures of each of these additional references, alone or in combination, does not serve to solve the deficiencies of the combination of Kolesnik and Carter. The Examiner has cited these references for purposes related to the specifics of the dependent claims.

For these reasons, Applicants respectfully request that the Examiner withdraw the 35 U.S.C. §103 rejection from the application.

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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